

套叶兰属的一对替代种：甘肃的新种套叶兰 和台湾的宝岛套叶兰*

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A PAIR OF VICARIOUS SPECIES OF *HIPPEOPHYLLUM*: *H. SINICUM* (sp. nov.) FROM GANSU AND *H. PUMILUM* FROM TAIWAN

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Abstract *Hippeophyllum sinicum* sp. nov. is described and illustrated; nomenclatural issues of *H. pumilum* are discussed and its lectotype is designated.

Key words *Hippeophyllum sinicum*; *H. pumilum*

Hippeophyllum is a genus of some six species mainly distributed in Southeast Asia, with one species extending to China. It is closely related to *Oberonia* from which it differs by the presence of creeping rhizomes on which the short, equitant-leaved stems are spaced at a certain distance apart.

The first report on Chinese species of *Hippeophyllum* was made by G. Masamune, who listed *H. pumilum* Fukuyama in his "A List of Vascular Plants of Taiwan" in 1954, and then published it in Journal of Geobotany (20(4):t. 196, 1974). In his publication, however, he gave neither description nor citation of specimen but a figure. It is obvious that this publication of new species is invalid. The same species was later republished as new by T. P. Lin in his "Native Orchids of Taiwan" (3:141~142(fig.). 1987). Unfortunately, this republication is also invalid due to the neglect of the author to indicate a nomenclatural type between the two specimens he cited.

In 1992, this species was reported from Wudu County of southern Gansu, and the name proposed by G. Masamune was followed. Wudu County is located in the northwestern limit of the subtropics of Asia ($33^{\circ}24'N$, $104^{\circ}55'E$), far distant from Taiwan. The only specimen there was collected on cliff in a forest at an altitude of 1600 m, while its Taiwan counterpart, *Hippeophyllum pumilum*, grows in dense forests at an elevation between 800 m and 1700 m. A comparison of the Gansu plant with the figures provided by G. Masamune and T. P. Lin shows that they are very similar except for some differences in leaf character. The leaves in Gansu entity are sword-like, 1.5~2 mm wide, with a joint at base, while those of Taiwan species usually elliptic, up to 8 mm wide, without a basal joint. The Gansu entity is here described as a new species: *Hippeophyllum sinicum* S. C. Chen et K. Y. Lang.

The distantly disjunct distribution of this pair of vicarious species in Gansu and Taiwan of China (Fig. 1) is of phytogeographic significance. Although there are a few orchids dis-

junctly distributed in Taiwan and mainland of Asia, such as *Cypripedium macranthum* Sw., *Coeloglossum viride* (L.) Hartm., *Arundina graminifolia* (D. Don) Hochr. and *Diploprora championii* (Lindl.) Hook. f., they are mostly either temperate taxa of wide distribution in North Asia or tropical ones in Southeast Asia. Of interest is the subtropical species, some of which are exclusively found in Taiwan and central or southern China, sometimes also in Japan, such as *Cypripedium japonicum* Thunb., *C. debile* Rchb. f., *Bletilla striata* (Thunb.) Rchb. f., *Pleione formosana* Hayata and *Holcoglossum quasipinifolium* (Hayata) Schltr. However, all of them are of wide distribution. *Hippeophyllum sinicum* and *H. pumilum* seem to be the only example that is isolated and narrowly found in Taiwan and southern Gansu. This appears to be a valuable addition to the evidence of the close relationship between Taiwan and mainland of China floristically and phytogeographically.

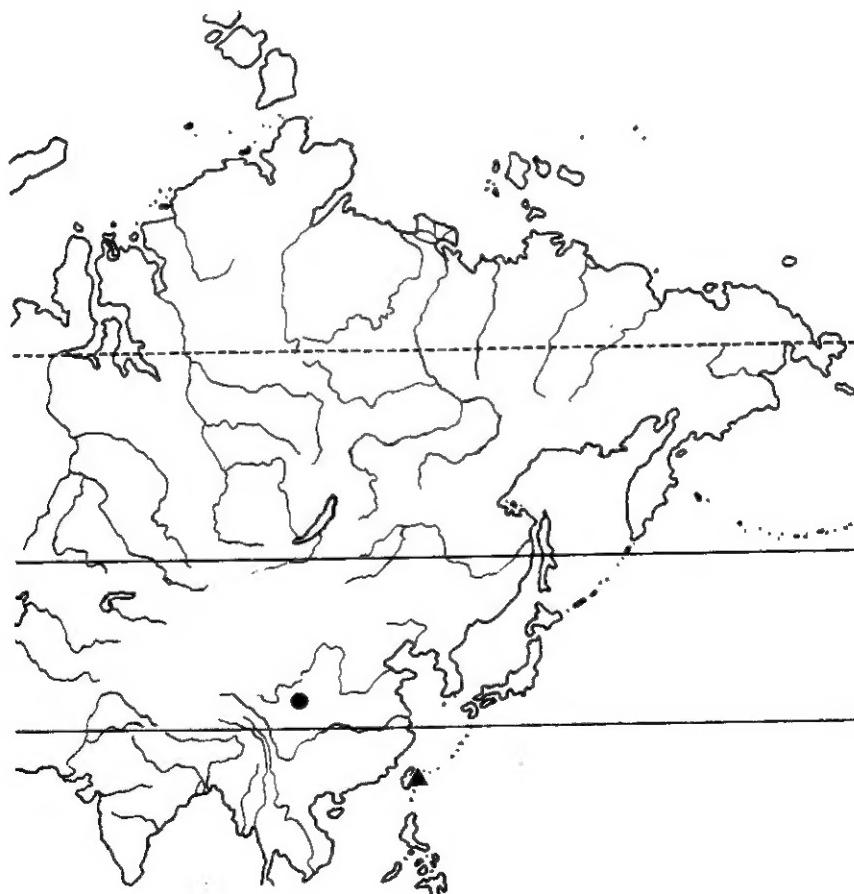


Fig. 1 Distribution of *Hippeophyllum sinicum* S. C. Chen et K. Y. Lang (●) and *H. pumilum* Fukuyama ex Masamune et T. P. Lin(▲)

1 *Hippeophyllum sinicum* S. C. Chen et K. Y. Lang, sp. nov. (Fig. 2)—*Hippeophyllum pumilum* auct. nec Fukuyama ex Masamune nec T. P. Lin; K. Y. Lang et Z. H. Tsai in Bot. Res. 6: 52. 1992.

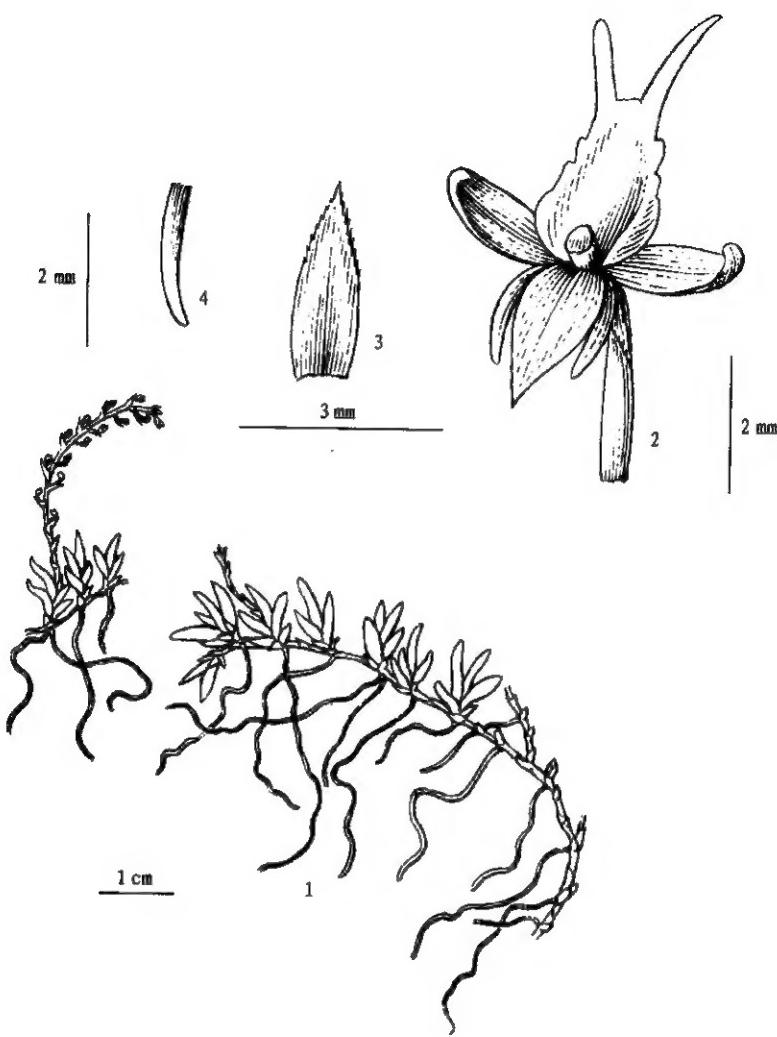


Fig. 2 *Hippeophyllum sinicum* S. C. Chen et K. Y. Lang
1. plants; 2. flower; 3. bract; 4. petal. (蔡淑琴绘)

Species nova *H. pumilo* arcte affinis, a qua imprimis differt foliis ensiformibus, 1.5~2 mm latis, basi articulatis.

Herba epiphytica; rhizoma in saxa repens; caules brevissimi, 3- vel 4-folii, inter se 2~5 mm distantes; folia compressa, carnosula, disticha et equitantia, ensiformia, (3~)6~11 mm longa, 1.5~2 mm lata, basi articulata; scapus 3.5 cm longus; racemus 2.5 cm longus, multiflorus; bracteae ovatae, ca. 1 mm longae, margine paulo erosae; ovarium cum pedicello ca. 0.8 mm longum; flores 2~3 in fasciculo vel solitarii, flavido-brunnei, ca. 2 mm in diam.; sepala ovato-elliptica vel elliptica ca. 0.8 mm longa; petala anguste oblonga, sepalis subaequilonga; labelulum ambitu ovato-oblongum, margine irregulariter dentatum, apice profunde bilobatum, lobis duabus paulo parallelis anguste lanceolatis 0.3~0.4 mm longis; columna ca. 0.2 mm longa.

Distribution Gansu, China(中国甘肃): Wudu County(武都县), Yu He(裕河), on cliff in forest, alt. 1600 m, 1979-06-06, K. Y. Lang 1001(type, PE).

The new species is closely related to *H. pumilum*, from which it differs particularly by having sword-like leaves 1.5~2 mm wide, with a joint at base.

2 *Hippeophyllum pumilum* Fukuyama ex Masamune(in J. Geobot. 21(4): t. 196. 1974, nom. nud.) et T. P. Lin, Native Orch. Taiwan 3: 141~142 (fig.). 1987, nom. illeg. — *Oberonia pumilum* (Fukuyama ex Masamune et T. P. Lin) S. S. Ling, Col. Ill. Indig. Orch. Taiwan 2: 610. 1990.

Folia elliptica, ca. 8 mm lata, basi non articulata.

Distribution Taiwan, China(中国台湾): Hualian County(花莲县), Taroko(太鲁阁), 1931-12-28, Suzuki s. n. (lectotype, TAI); Mt. Tungmao (东卯山), in forest, alt. 800~1500 m, 1980-04-20, T. P. Lin 467(TAIF).

The specimen collected by Suzuki is here designated as lectotype, which was examined by the senior author during his recent visit to the herbarium, Botany Department, Taiwan University (TAI).

摘要 本文描述了兰科新种套叶兰 *Hippeophyllum sinicum* S. C. Chen et K. Y. Lang; 同时讨论了台湾替代种宝岛套叶兰 *H. pumilum* 的命名问题，并标定了该种的后选模式。

关键词 套叶兰；宝岛套叶兰